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FACILITIES AND ENVIRONMENTAL EFFECTS
SURFACE PREPARATION AND COATINGS
DESIGN/PRODUCTION INTEGRATION
HUMAN RESOURCE INNOVATION
MARINE INDUSTRY STANDARDS
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INDUSTRIAL ENGINEERING
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R RESEARCH
E AND
A ENGINEERING
P FOR
S AUTOMATION
AND
PRODUCTIVITY
IN
SHIPBUILDING

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CURRENT STATUS OF THE LOW COST PARTS DEFINITION PROJECT

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Newport News Shipbuilding and Dry Dock Company
Newport News, Virginia**

Mr. Moore is currently the Newport News REAPS technical representative, the Project Manager of the low cost parts definition project, and is a member of a structural CAD/CAM project. He received his degrees in naval architecture and marine engineering from the University of Michigan. Together with Doug Martin, he authored the paper, "Requirements and Benefits of Integrated Computer Aided Ship Design and Production" presented at ICCAS '79.

Mr. Moore's past experience includes management responsibility at different times for Mold Loft, Fabrication Shop and Assembly Shops. He has also been instrumental in the implementation of AUTOKON; with additional experience in facility planning for the automation of steel fabrication, and manufacturing engineering.

INTERACTIVE GRAPHICS PART DEFINITION PROJECT

MAIN REQUIREMENTS OF IPD AS DEFINED BY NNS AND REAPS
TECH REPS,

- HARDWARE/SOFTWARE PACKAGE TO ALLOW USERS-
TO PERFORM REAL TIME DEFINITION OF THEIR
APPLICATION WITH VISUAL (GRAPHIC) OUTPUT
AND BUILD UP A DIGITAL MODEL OF THE
DEFINITION AT THE SAME TIME,
- MUST BE PORTABLE AND, CAPABLE OF BEING. UPDATED
AND EXPANDED INDEPENDENTLY OF THE VENDOR,
- PROVIDE A GENERAL TOOL TO BE AVAILABLE FOR
FUTURE GRAPHICS PROJECTS WITHIN U.S.
S H I P B U I L D I N G ,
- DEDICATED COMPUTER HARDWARE TO PROVIDE.
RESPONSE TO SUPPORT INTERACTIVE GRAPHICS.
- CAPABLE OF DIRECT INTERFACE TO AUTOKON/
SPADES/STEERBEAR SYSTEMS.

FUNCTIONAL AREAS ADDRESSED BY IPD

- STRUCTURAL PART DEFINITION (CURRENT LOFTING)
 - NESTING
 - STRUCTURAL SHOP DRAWINGS
 - Nc MACHINING (APT)
 - DESIGN USE
- } SECONDARY EVENTS
AT NNS

CONTRACT STATUS

- PHASE I - FEASIBILITY AND DESIGN STUDY
 - SYSTEM SPECIFICATION
 - HARDWARE CONFIGURATION
 - POTENTIAL VENDORS
 - BENCHMARK (WITH 8 VENDORS)
 - INTERIM REPORTS TO REAPS ADVISORY GROUP AND TECH REPS,
 - FINAL VENDOR SELECTION BY NNS WITH TECH REP APPROVAL,

COMPLETED OCT ' 78

- PHASE II - UPDATE MARAD PROPOSAL AND RECEIVE APPROVAL

NNS HAS PROCEEDED WITH CONTRACTS TO VENDORS FOR SOME HARDWARE AND ALL SOFTWARE AT ITS OWN EXPENSE, WE HAVE STARTED WITH PHASE II DEVELOPMENT WITH AGREEMENT TO CHARGE TO THE EXISTING PHASE II CONTRACT,

EXPECTED OCT ' 79

IPD HARDWARE CONFIGURATION

- COMPUTER - INTERDATA 3220
- GRAPHICS DISPLAY - TEKTRONIX 4081
- HARDCOPY - VERSATEC 8224

PROJECT PLAN PHASE II.

	MONTH OF COMPLETION FROM START OF PHASE
* • ISSUE PURCHASE ORDERS.	1
• INTERDATA TRAINING	3
* • DEFINE DATA SPECIFICATION	5
* • AD 2000 INTERFACE	5
• WRITE HOST ROUTINES	7
• HARDWARE/SOFTWARE INSTALLATION	7
• RJE INTERFACE	7
(10/79) * • AD 2000 INSTALLATION	9
(10/79) * • AD 2000 TRAINING	10
• MINI SEND/RECEIVE	12
• REFINE NEST	14
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*INDICATES WORK ALREADY IN PROGRESS

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